

receives a stop signal for stopping a supply of hydrogen to fuel cells, and a stop control module that selects a hydrogen purge mode that activates and controls the purge gas supply module to remove hydrogen from a hydrogen separation module or a hydrogen no-purge mode that stops the purge gas supply module as a stop control mode, and executes a stop control in the stop control mode to stop the supply of hydrogen to fuel cells.

The Office Action does not identify specific structural features disclosed in Aoyama that correspond to each and every structural feature positively recited in claim 1, including the claimed stop signal input module and stop control module. Instead, the Office Action indicates, through apparent speculation, that components of the hydrogen generating device disclosed in Aoyama allegedly have certain capabilities which the Office Action ascribes to the elements without proper support in the reference. The conclusions drawn by the Office Action can only be based on broad assumptions that are not supported by the Aoyama reference.

The Office Action, after ascribing to components described in Aoyama capabilities that are not supported in the Aoyama disclosure, the Office Action then apparently mischaracterizes Applicants' claim language. The Office Action, in the first full paragraph on page 3, cites judicial precedent for the proposition that recitation of an element being "capable" of performing a function is not a positive limitation. As they were in response to the previous Office Action, Applicants remain confused how the Office Action can mischaracterize language of, for instance, claim 1 that is simply not there. Applicants, in fact, do not attempt to recite in any manner what any element is capable of performing. Rather, it is the Office Action that attempts to assert what certain elements in the Aoyama reference are capable of performing.

Continuing to convolute the standard, the Office Action attempts to shift the burden away from the Patent Office for establishing anticipation where the Office Action indicates

that Applicants fail to show that the Aoyama device is not capable of operating in the manner asserted by the Office Action. These are not proper standards by which to assert that Aoyama discloses a power system having all of the structural features positively recited in claim 1.

The Office Action fails to identify structural elements of the device disclosed in Aoyama that correspond to a power system having all of the features of a stop signal input module and a stop control module positively recited in claim 1. Instead, the Office Action asserts that a pump 74 disclosed in Aoyama is capable of running in a shutdown mode to remove hydrogen from a hydrogen separation module. This unreasonably broad interpretation of Aoyama fails to give plain meaning to all of the features positively recited in claim 1. This interpretation also mischaracterizes positive disclosures regarding the Aoyama device.

Aoyama discloses a hydrogen generation device having a structure that does not require a purge gas supply (see, e.g., Aoyama, paragraph [0033]), and discloses a structure that includes a recycle purge gas pump 74 that recycles hydrogen and purge gas. Aoyama fails to disclose a power system having the structural features of a stop signal input module, and a stop control module that selects between a hydrogen purge mode and a hydrogen no-purge mode, the stop control module activating and controlling in the hydrogen purge mode a purge gas supply module to remove hydrogen from a hydrogen separation module.

For at least the foregoing reasons, Aoyama cannot reasonably be considered to teach a power system having the combination of all of the features positively recited in independent claim 1.

Further, claims 2-7 and 10-13 are also not taught by Aoyama for at least the respective dependence of these claims directly or indirectly on an allowable base claim as well as for the separately patentable subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-7 and 10-13 under 35 U.S.C. §102(b) over Aoyama are respectfully requested.

Because neither of Yamanashi or Epp overcome the above identified shortfalls of the application of Aoyama to at least to the combination of features positively recited in independent claim 1, claims 8, 9 and 14-29 would not have been suggested by any combination of Aoyama, Yamanashi and Epp for at least the respective dependence of these claims directly or indirectly on an allowable base claim, as well as for the separately patentable subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejection of claims 8, 9 and 14-29 under 35 U.S.C. §103(a) over Aoyama in combination with the other applied references are respectfully requested.

The Office Action rejects claims 1-6, 10-13, 17, 18, 24, 27 and 28 under 35 U.S.C. §103(a) over U.S. Patent Application Publication No. 2003/0072978 A1 to Meyer et al. (hereinafter "Meyer") in view of Epp and further in view of U.S. Patent No. 6,410,175 B1 to Tillmetz et al. (hereinafter "Tillmetz"); rejects claims 8, 9 and 26 under 35 U.S.C. §103(a) over Meyer and Epp in view of Tillmetz and further in view of Aoyama; rejects claims 1, 7, 14-16, 19, 20, 23, 25 and 29 under 35 U.S.C. §103(a) over Epp in view of Meyer; and rejects claims 21 and 22 under 35 U.S.C. §103(a) over Epp in view of Meyer and further in view of Yamanashi. These rejections are respectfully traversed.

In rejecting claim 1 under 35 U.S.C. §103(a), the Office Action relies solely on the combination of Meyer and Epp. The Office Action, on page 12, admits that Meyer does not mention a stop input module or stop control module recited in claim 1, and on page 20 admits that Epp does not teach a purge gas supply module as recited in claim 1. Because Epp does not teach a purge gas supply module, Epp cannot teach the recited stop control module that activates and controls the purge gas supply module. The Office Action asserts that these

features are inherently disclosed in the combination of Meyer and Epp because a combination of Epp's fuel cell electric power system and Meyer's fuel gas processing system is "capable of having a stop control module (emphasis added)." For the reasons discussed above, it is improper for the Office Action to (1) convolute the required standards in this regard; and (2) fail to identify the structural elements of the hydrogen generation system disclosed in the combination of Meyer and Epp that can reasonably be considered to correspond to the stop signal input module and the stop control module recited in claim 1.

Further, the Office Action fails to apply a proper standard by which to assert what the combination of Meyer and Epp may inherently teach. To establish inherency, the Office Action must provide evidence or technical reasoning that makes it clear that the missing descriptive matter "is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill in the art." Inherency may not be established by "probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *See* MPEP §2112; *In re Robertson*, 169 F3d 743, 745 (Fed. Cir. 1999). The standard requires that a basis in fact and/or technical reasoning to show that "the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *See* MPEP §2112. In this case, the Office Action asserts that the combination of Meyer and Epp is capable of having the stop signal input module or stop control module features recited in claim 1. This assertion, even if true, does not establish that all of the features of the claimed stop signal input module and the stop control module, not explicitly disclosed by the Office Action's own admission, are necessarily present in the combination of references.

In view of these deficiencies of the Office Action, it is not necessary for Applicants to address why the combination of Meyer and Epp is improper. However, by not addressing the propriety of the combination of Meyer and Epp, Applicants do not concede that this

combination, or any other combination of references cited in the Office Action, is proper. The combination of Meyer and Epp may be improper, for instance, at least because attempting to combine Epp with Meyer in the manner suggested may impermissibly change the principles of operation of the Meyer device.

Tillmetz does not apply in any meaningful way to the subject matter of, for example, independent claim 1 that would overcome the above-identified shortfalls in the application of the combination of Meyer and Epp to the combination of all of the features positively recited in that claim. As such, any permissible combination of Meyer, Epp and Tillmetz has not been shown to reasonably establish a *prima facie* case for obviousness of the subject matter of at least independent claim 1. Further, claims 2-6, 10-13, 17, 18, 24, 27 and 28 also would not have been suggested by this combination of applied references for at least the respective dependence of these claims directly or indirectly on an allowable base claim, as well as for the separately patentable subject matter that each of these claims recites.

Further, because neither of Aoyama or Yamanashi is applied in a manner that would overcome the shortfalls in the application of Meyer and Epp to the subject matter of independent claim 1, none of the other attempts at rejection of the subject matter of any of the dependent claims over the combination of applied references have merit.

Accordingly, reconsideration and withdrawal of the pending claims under 35 U.S.C. §103(a) as being unpatentable over the varyingly-asserted combinations of applied references are respectfully requested.

Applicants note with concern the Office Action's attempt to proffer a tutorial regarding the varying bases for rebutting the prior art rejections of the Office Action. In this regard, Applicants are specifically concerned regarding the Response to Arguments section in which Applicants' previous arguments traversing the prior art rejections of the Office Action are mischaracterized. Applicants believe that this Office Action, as did the previous Office

Action, misapplies the respective standards for rendering anticipated and/or obvious the subject matter of the pending claims over the varying combinations of prior art references. In this regard, Applicants reiterate that it is the Office Action that varying indicates, in unsupportable conclusory manner, what certain of the elements disclosed in the applied prior art references can reasonably be considered to explicitly or inherently teach with respect to the subject matter of the pending claims. In several instances, the Office Action indicates what it believes elements from the prior art references are "capable" of accomplishing in attempting to map features disclosed in those references to the subject matter of the pending claims. The Office Action then misapplies judicial precedent regarding assertions that the Office Action is attempting to make rather than arguments that the Applicants are making traversing the prior art rejections of the Office Action. Finally, the Office Action also misapplies the doctrine of inherency.

Applicants therefore respectfully request that should any of the prior art rejections of the Office Action be maintained in view of Applicants' above-noted arguments, that prior to issuing of any Advisory Action, Applicants be afforded an opportunity to conduct a personal interview with the Examiner, and her supervisor, in order to attempt to clarify any misinterpretation on the part of either Applicants' representatives or the Patent Office regarding the arguments presented.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-29 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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